

Notice of Allowability

Application No.

09/954,700

Examiner

Benjamin C. Lee

Applicant(s)

GISSELBERG ET AL.

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2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to examiner's Amendment.
2. ☒ The allowed claim(s) is/are 1-22 and 24-26; renumbered 1-25 by Examiner.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>02062006</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. Introduction: Applicant and Examiner resolved all issues to result in the following Examiner's Amendment to place application in condition for allowance. Therefore, the Appeal Brief filed by Applicant on 1/4/06 is moot as a result.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Susan Betcher on 2/2/06.

The application has been amended as follows:

Claim 1. (Currently Amended) A miniature resonating marker assembly, comprising

a signal element comprising a core, a wire coil disposed around the core, and a capacitor connected to the wire coil, the signal element generating a magnetic field with a selected resonant frequency for the marker assembly in response to a specific stimulus, and the magnetic field having a magnetic center along a first axis of the core; and

an inert encapsulation member encapsulating the signal element, the encapsulation member and the signal element therein defining a unit having a selected geometric shape having a geometric center, the geometric center being coincident with the magnetic center along at least the first axis of the core.

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Claim 19. (Currently Amended) A miniature resonating marker assembly having a geometric center, comprising:

a core having an elongated central portion, a first cap having a first thickness, and a second cap having a second thickness, wherein the first thickness is different than the second thickness;

a wire coil disposed around the central portion of the core between the first and second caps; and

a capacitor connected to the wire coil operative to form a signal element that generates a magnetic field with a selected resonant frequency in response to a specific stimulus, the first cap being movable relative to the coil and capacitor for tuning the marker assembly to a selected resonant frequency; the magnetic field having a magnetic center along a first axis coincident with the geometric center of the resonating marker assembly.

Claim 21. (Currently Amended) A resonating marker assembly having a geometric center, comprising:

a core having an elongated central portion and first and second endcaps connected to the central portion;

a wire coil disposed around the central portion of core intermediate the first and second endcaps; and

a capacitor connected to the wire coil to form a tuned signal element that generates a magnetic field with a selected resonant frequency in response to a specific stimulus, the first endcap being movable relative to the coil and capacitor for tuning the marker assembly to a

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selected resonant frequency; the magnetic field having a magnetic center along a first axis coincident with the geometric center of the resonating marker assembly.

Claim 22. (Currently Amended) A resonating marker assembly having a geometric center, comprising:

a sleeve;

a core having a central portion extending through the sleeve and a pair of endcaps connected to the central portion, the sleeve being between the endcaps, and the core being axially movable relative to the sleeve;

a wire coil disposed around the sleeve; and

a capacitor connected to the wire coil proximate to the core to form a signal element that generates a magnetic field with a selected resonant frequency in response to a specific stimulus, the core being axially movable relative to the sleeve and the coil for tuning the marker assembly to a selected resonant frequency; the magnetic field having a magnetic center along a first axis coincident with the geometric center of the resonating marker assembly.

Claim 23. (Canceled).

Claim 24. (Currently Amended) A resonating marker assembly having a geometric center, comprising:

a ferromagnetic core having a first end and a second end;

a wire coil disposed around the ferromagnetic core;

a capacitor positioned at the first end of the core and operatively connected to the wire coil to form a signal element that generates a magnetic field with a selected resonant frequency

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in response to a specific stimulus, the magnetic field having a magnetic center along a first axis coincident with the geometric center of the resonating marker assembly; and

an axially adjustable segment at the second end of the core that projects outwardly with respect to the longitudinal axis of the core.

Claim 25. (Currently Amended) A resonating marker assembly having a geometric center, comprising:

a core having a central portion intermediate to a pair of enlarged endcaps, the central portion having a first magnetic permeability and the enlarged endcaps having a second magnetic permeability different than the first magnetic permeability;

a wire coil disposed around the core intermediate to the endcaps;

a capacitor operatively connected to the wire coil to form a signal element that generates a magnetic field with a selected resonant frequency in response to a specific stimulus, the magnetic field having a magnetic center along a first axis coincident with the geometric center of the resonating marker assembly; and

an inert encapsulation member encapsulating the core, the wire coil, and the capacitor forming an activatable unit implantable in a patient through an introducer needle.

Claim 27. (Canceled).

3. The following is an examiner's statement of reasons for allowance:

Applicant clarified that the claimed "geometric center" and "magnetic center" refer to their respective "center point", as evidenced by the interchangeable terminology used throughout the specification. As such, the claimed resonating marker assembly having at least a core, wire

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coil and tuning capacitor that is constructed particularly to generate a magnetic field having a magnetic center point to coincide with the geometric center (point) in the manner claimed is not sufficiently taught or suggested in the prior art. Furthermore, the prior art fails to sufficiently teach or suggest the claimed resonating marker assembly having the particular construction of a capacitor having an aperture therethrough, an elongated ferromagnetic core extending through the aperture, a wire coil connected to the capacitor wherein the wire coil has a first portion disposed around the core adjacent to one side of the capacitor and a second portion disposed around the core adjacent to another side of the capacitor; and an inert encapsulation member in the manner claimed.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (571) 272-2963. The examiner can normally be reached on Mon -Thu 11:00Am-7:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Benjamin C. Lee
Primary Examiner
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B.L.